



EXTENDED GAS ANALYSIS

Triassic

V0002601 - 1 CONTAINER IDENTITY

METER ID: Shell Canada Limited OPERATOR

WELL LICENSE NUMBER: 16372

LABORATORY FILE NUMBER: 52134-2003-5848

200/b-3-G/94-P-3/00 LOCATION (UWI)

Shell Bulmoose b-3-G/94-P-3 OPERATOR

WELL NAME: Tight Hole

POOL OR ZONE: Baldonnel

TEST TYPE AND NO.: Separator

TEST RECOVERY: APEX

FIELD OR AREA: Bulmoose

FIELD OR ZONE: Baldonnel

TEST RECOVERY: APEX

TEST TYPE AND NO.: Separator

TEST RECOVERY: APEX

POINT OF SAMPLE

PUMPING: _____ FLOWING: _____ GAS LIFT: _____ SWAB: _____

WATER: _____ OIL: _____ GAS: _____

TEST INTERVAL or PERFS (metres)

SEPARATOR: _____ RESERVOIR: _____ OTHER: _____

CONTAINER WHEN SAMPLED: _____ °C

CONTAINER WHEN RECEIVED: _____ °C

SEPARATOR: _____ OTHER: _____

Temperatures, °C

15:00 Hrs 2003 08 22 DATE SAMPLED (Y/M/D)

2003 08 25 DATE RECEIVED (Y/M/D)

2003 09 04 DATE ANALYZED (Y/M/D)

EA ANALYST

AMT. AND TYPE CUSHION: _____ MUD RESISTIVITY: _____

Pressures, kPa (gauge)

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	Wt% AIR FREE AS RECEIVED
H ₂	0.0044	0.0065	
He	0.0001	0.0001	
N ₂	0.0289	0.0443	
CO ₂	0.1505	0.0000	
H ₂ S	0.1746	0.0000	
C ₁	0.6393	0.9473	
C ₂	0.0011	0.0016	3.8
C ₃	0.0001	0.0001	0.4
IC ₄	Trace	Trace	Trace
C ₄	Trace	Trace	Trace
IC ₅	Trace	Trace	Trace
C ₅	Trace	Trace	Trace
C ₆	Trace	0.0001	Trace
C ₇₊	Trace	Trace	Trace
Total	1.0000	1.0000	4.3

CALCULATED GROSS HEATING VALUE		CALCULATED VAPOR PRESSURE	
MJ/m ³ @ 15°C & 101.325 kPa (abs.)		kPa (abs.) @ 40°C	
29.49	35.97		
MOISTURE FREE: MOISTURE & ACID GAS FREE		PENTANES PLUS	
CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa		MOISTURE FREE AS SAMPLED	
1.003 kg/m ³	0.819	23.7	
DENSITY		RELATIVE DENSITY	
RELATIVE MOLECULAR MASS		RELATIVE MOLECULAR MASS	
CALCULATED PSEUDOCRITICAL PROPERTIES			
AS SAMPLED		ACID GAS FREE	
5726.0 kPa (abs.)	237.1 K	4524.1 kPa (abs.)	188.9 K
p _{pc}	T _{pc}	p _{pc}	T _{pc}
C _p PROPERTIES @ 15°C & 101.325 kPa		GAS COMPRESSIBILITY	
DENSITY		SUPER COMPRESSIBILITY	
MOLECULAR WEIGHT		@ 15°C, 101.325 kPa	
		@ 15°C, 101.325 kPa	

REMARKS:
 H2S determined in the lab = 17.46 %
 H2S may have degraded prior to lab analysis.
 O2 Content Normalized (mole fraction) = 0.0000

Gas sample underwent Carbon Isotope Analysis as by the University of Alberta.
 Refer to page 3 for results.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO AGA REPORT #6 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING GPA 2143 - 00 PHYSICAL CONSTANTS.